



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0829; Directorate Identifier 2013-NM-085-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede airworthiness directive (AD) 2010-23-12, which applies to certain Airbus Model A330-201, -202, -203, -223, -223F, -243, and -243F Airplanes, Model A330-300 series airplanes, and Model A340-200, A340-300, A340-500, and A340-600 series airplanes. AD 2010-23-12 requires inspecting to determine the part number for Thales Avionics Angle of Attack (AoA) probes, and replacing any affected probe with a serviceable probe. Since we issued AD 2010-23-12 we received reports that the AoA sensors on certain airplanes were modified and re-identified without performing the inspection to determine the part number; therefore, the affected probes were not replaced with serviceable probes. This proposed AD would add airplanes to the applicability and, for certain airplanes, require those affected probes be replaced. We are proposing this AD to prevent erroneous AoA information and consequent delayed activation or non-activation of the AoA protection systems, which, in combination with flight at a high angle of attack, could result in reduced controllability of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Airbus service information identified in this proposed AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; e-mail airworthiness.A330-A340@airbus.com; Internet <http://www.airbus.com>.

For Thales Avionics service information identified in this proposed AD, contact Thales – Aerospace Division, 105, avenue du General Eisenhower - BP 63647, 31036 Toulouse Cedex 1, France; telephone +33 (0)5 61 19 65 00; fax +33 (0)5 61 19 66 00; Internet <http://www.thalesgroup.com/aerospace>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind

Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0829; Directorate Identifier 2013-NM-085-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On October 22, 2010, we issued AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010). That AD required actions intended to address an unsafe condition on the products listed above.

Since we issued AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010), we received reports that the AoA sensors on certain airplanes were modified and re-identified without performing the inspection to determine the part number; therefore, the affected probes were not replaced with serviceable probes. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2013-0068, dated March 15, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

During Airbus Final Assembly Line reception flight tests, Angle of Attack (AoA) data from two different aeroplanes were found inaccurate, which was confirmed by flight data analysis.

The results of the investigation conducted by Airbus and Thales on the removed sensors revealed oil residue between the stator and the rotor parts of the AoA vane position resolvers. This oil residue was the result of incorrect removal of machining oil during the manufacturing process

of the AoA resolvers. At low temperatures, this oil residue becomes viscous (typically in cruise) causing delayed and/or reduced AoA vane movement. Multiple AoA sensors could be simultaneously affected, providing incorrect indications of the AoA of the aeroplane.

This condition, if not corrected, could lead to erroneous AoA information and consequent delayed activation or non-activation of the AoA protection systems which, if during flight at a high angle of attack, could result in reduced control of the aeroplane.

To address this unsafe condition, EASA issued AD 2010-0016R1

[http://ad.easa.europa.eu/blob/easa_ad_2013_0068.pdf/AD_2011-0007R1_1)] [which corresponds to FAA AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010)] to require the identification of the serial number (S/N) of each installed Thales Avionics (formerly SEXTANT), Part Number (P/N) C16291AA AoA sensor and the replacement of all suspect units with serviceable one. EASA AD 2010-0016R1 also prohibited the (re) installation of these same S/N AoA sensors on any aeroplane, unless corrective measures had been accomplished.

Since that [EASA] AD was issued, it was discovered that a part of the affected population of AoA sensors may have been modified and re-identified from P/N C16291AA to P/N C16291AB, in accordance with the instructions of Airbus Service Bulletin (SB) A330-34-3228 or SB A340-34-5070, as applicable to aeroplane type, without having passed the inspection in accordance with the instructions of Thales Avionics SB C16291A-34-007, Revision 01.

For the reasons described above, this new [EASA] AD retains the requirements of EASA AD 2010-0016R1, which is superseded, [adds airplanes to the applicability, and requires, for the affected population that was not addressed by EASA AD 2010-0016R1, the replacement of the suspect units with serviceable ones.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Thales Avionics has issued Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Change to AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010)

We have changed paragraph (h) in this proposed AD to clarify the procedures for replacing the probes.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 70 products of U.S. registry.

The actions that are required by AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010), and retained in this proposed AD take about 3 work-hours per product, at an average labor rate of \$85 per work hour. Based on these figures, the estimated cost of the currently required actions is \$255 per product.

We estimate that it would take about 9 work-hours per product to comply with the

new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$0 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$53,550, or \$765 per product.

We have received no definitive data that would enable us to provide cost estimates for the optional terminating action specified in this proposed AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010), and adding the following new AD:

Airbus: Docket No. FAA-2013-0829; Directorate Identifier 2013-NM-085-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010).

(c) Applicability

(c) This AD applies to Airbus airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD,

(1) Model A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343 airplanes; all manufacturer serial numbers.

(2) Model A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, and A340-642 airplanes; all manufacturer serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 34: Navigation.

(e) Reason

This AD was prompted by reports that the AoA sensors on certain airplanes were modified and re-identified without performing an inspection to determine the part number; therefore, probes having certain part numbers were not replaced with serviceable probes. We are issuing this AD to prevent erroneous AoA information and consequent delayed activation or non-activation of the AoA protection systems, which, in combination with flight at a high angle of attack, could result in reduced controllability of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Inspection of AoA Probes

This paragraph restates the requirements of paragraph (g) of AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010). For airplanes on which an AoA sensor having part number (P/N) C16291AA is installed, except as provided by paragraph (k) of this AD: Within 3 months after December 14, 2010 (the effective date of AD 2010-23-12), perform a detailed inspection of the Thales Avionics AoA probes having P/N C16291AA for a serial number identification, in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD. A review of airplane maintenance

records is acceptable in lieu of this inspection if the serial number of the AoA probe can be conclusively determined from that review. If no AoA probe having P/N C16291AA and a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009, is identified during the inspection required by this paragraph of this AD, no further action is required by this AD, except for paragraph (l) of this AD.

(1) Airbus Mandatory Service Bulletin A330-34-3232, dated January 20, 2010 (for Model A330-200 and A330-300 series airplanes).

(2) Airbus Mandatory Service Bulletin A340-34-4239, dated January 20, 2010 (for Model A340-200 and A340-300 series airplanes).

(3) Airbus Mandatory Service Bulletin A340-34-5072, dated January 20, 2010 (for Model A340-500, and A340-600 series airplanes).

(h) Retained Replacement of Identified AoA Probes

This paragraph restates the requirements of paragraph (h) of AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010), with clarified procedures. If the serial number of the AoA probe identified during the inspection required by paragraph (g) of this AD corresponds to a suspect AoA probe specified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, replace the affected AoA probe with a serviceable AoA probe, in accordance with one of the four options and associated Accomplishment Instructions specified in the applicable service bulletin identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) For airplanes on which Airbus Modification 53368 (back-up speed scale) has been embodied in production or Airbus Service Bulletin A330-34-3213, Airbus Service

Bulletin A340-34-4213, or Airbus Service Bulletin A340-34-5060, as applicable, has been embodied in service: Within 3 months after December 14, 2010 (the effective date of AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010)).

(2) For airplanes on which Airbus Modification 53368 (back-up speed scale) has not been embodied in production and Airbus Service Bulletin A330-34-3213, Airbus Service Bulletin A340-34-4213, or Airbus Service Bulletin A340-34-5060, as applicable, has not been embodied in service: Within 15 months after December 14, 2010 (the effective date of AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010)).

(i) New Replacement of AoA Probes

For airplanes on which an AoA probe having P/N C16291AA or C16291AB, with a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012, is installed, except as provided by paragraph (k) of this AD: Within 6 months after the effective date of this AD, replace any AoA probe having P/N C16291AA or C16291AB with a serviceable AoA probe, in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD. A review of airplane maintenance records that demonstrates that the affected AoA probe has passed the inspection, in accordance with the Accomplishment Instructions of Thales Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012, is acceptable for compliance with the requirements of this paragraph.

(j) Exception to AD Requirements

Airplanes on which Airbus Modification 58555 (installation of AoA sensors with P/N C16291AB) or Airbus Modification 46921 (installation of AoA sensors with P/N 0861ED) has been embodied in production are not affected by the requirements in paragraphs (g), (h) and (i) of this AD, provided that no AoA sensor has been replaced since first flight.

(k) Parts Installation Limitations

(1) For airplanes on which an AoA sensor having part number (P/N) C16291AA is installed: As of December 14, 2010 (the effective date of AD 2010-23-12, Amendment 39-16501 (75 FR 68698, November 9, 2010)) and until the effective date of this AD, no person may install, on any airplane, a Thales Avionics AoA probe having P/N C16291AA and a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009, unless the AoA is fitted with an inspection label stating that Thales Service Bulletin C16291A-34-007, has been accomplished.

(2) As of the effective date of this AD, no person may install, on any airplane, a Thales Avionics AoA probe having P/N C16291AA or P/N C16291AB and a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012, unless the AoA is fitted with an inspection label stating that Thales Service Bulletin C16291A-34-007, has been accomplished.

(I) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information Airworthiness Directive 2013-0068, dated March 15, 2013, for related information, which can be found in the AD docket on the internet at <http://www.regulations.gov>.

(2) For Airbus service information identified in this proposed AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; e-mail airworthiness.A330-A340@airbus.com; Internet <http://www.airbus.com>.

(3) For Thales Avionics service information identified in this proposed AD, contact Thales – Aerospace Division, 105, avenue du General Eisenhower - BP 63647, 31036 Toulouse Cedex 1, France; telephone +33 (0)5 61 19 65 00; fax +33 (0)5 61 19 66 00; Internet <http://www.thalesgroup.com/aerospace>.

(4) You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 17, 2013.

Ross Landes, Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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